



HG150A1200V8-1

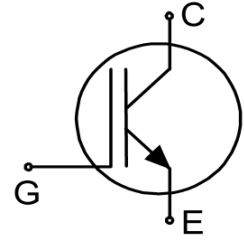
1200V/ 150A IGBT

Features:

- 1200V trench & field stop technology
- Low switching losses
- Positive temperature coefficient

Applications:

- Power Supply
- Inductive Heating
- General Purpose Inverter



Chip Type	VCE	Icn	Die Size	Package
IGBT	1200V	150A	10390.8x 9901 μm^2	Wafer

Mechanical Parameters

Die Size	10390.8 x 9901	μm^2
Wafer size	200	mm
Maximum possible chips per wafer	240ea	
Pad metal	5 μm	
Thickness	115 μm	
Scribe Line	80 μm	
Backside metal	15KA	
Recommended Storage environment	Store in original container, in dry nitrogen, in dark environment, <6 months at an ambient temperature of 23°C	

Maximum Ratings

Parameter	Symbol	Value	Unit
Collector-emitter voltage, $T_j=25^\circ\text{C}$	V_{CE}	1200	V
DC collector current, limited by $T_{j\text{ max}}^1$	I_C	150	A
Operating Junction and Storage Temperature Rang	T_J, T_S	175 -55 to 175	$^\circ\text{C}$
Gate-emitter voltage	V_{GE}	± 20	V

Electrical Characteristics, $T_j=25^\circ\text{C}$

Parameter	Symbol	Conditions	Value			Unit
			min.	typ.	max.	
Collector-emitter breakdown voltage	$V_{(BR)CES}$	$V_{GE}=0\text{V}, I_C=1.0\text{mA}$	1200	-	-	V
Collector-emitter saturation voltage	$V_{CE(sat)}$	$V_{GE}=15\text{V}, I_C=150\text{A}$		1.53	1.73	
Gate-emitter threshold voltage	$V_{GE(th)}$	$V_{GE}=V_{CE}, I_C=3.0\text{mA}$	5.4	5.77	6.15	
Zero gate voltage collector current	I_{CES}	$V_{GE}=0\text{V}, V_{CE}=1200\text{V}$	-	-	1	μA
Gate-emitter leakage current	I_{GES}	$V_{CE}=0\text{V}, V_{GE}=\pm 20\text{V}$	-	-	100	nA
Integrated gate resistor	r_G			1.6		Ω

¹ Depending on thermal properties on assembly.